

Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty Docket No. NOVLP088/NVLS-2882	Application No.: 10/825,888
	Applicant: Bandyopadhyay et al.	
	Filing Date April 16, 2004	Group 2812

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
BKS	A1	6,387,453	05.14.02	Brinker et al.			
	A2	5,789,027	08.04.98	Watkins et al.			
	A3	6,391,932 B1	05.21.02	Gore et al.			
	A4	5,700,844	12.23.97	Hedrick et al.			
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	A6	2002/0123240 A1	09.05.02	Gallagher et al.			
	A7	6,340,628	01.22.02	Van Cleemput, et al.			
	A8	6,383,955	05.07.02	Matsuki, et al.			
	A9	6,596,654	07.22.03	Bayman, et al.			
	A10	2004/0099952	05.27.04	Goodner et al.			
	A11	2004/0102031	05.27.04	Kloster et al.			
	A12	2004/0185679	09.23.04	Ott et al.			
	A13	6,848,458	02.01.05	Shrinivasan et al.			
	A14	6,805,801	10.19.04	Humayun et al.			
	A15	6,391,932	05.21.02	Gore et al.			
	A16	4,882,008	11.21.89	Garza et al.			
	A17	6,329,062	12.11.01	Gaynor			
	A18	6,268,276	07.31.01	Chan et al.			
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	A24	6,312,793	11.06.01	Grill et al.			
	A25	6,576,345	06.10.03	Cleemput et al.			
	A26	6,677,251	01.2004	Lu et al.			
	A27	6,812,043	11.2004	Bao et al.			
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	A32	6,756,085	06.29.04	Waldfried et al.			
Examiner	BKS			Date Considered 6/24/06			

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Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub- class	Translation	
							Yes	No
<i>ZS/KS</i>	B1	WO95/07543	03.16.95	WIPO	-	-	X	

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
<i>ZS/KS</i>	C1	Jan, C.H., et al, <i>90NM Generation, 300mm Wafer Low k ILD/Cu Interconnect Technology</i> , 2003 IEEE Interconnect Technology Conference.
	C2	Wu et al., U.S. Application No. 10/789,103 (Atty Docket No.: NOVLP094), entitled: <i>Methods For Producing Low-K CDO Films With Low Residual Stress</i>
	C3	Wu et al., U.S. Application No. 10/820,525 (Atty Docket No.: NOVLP091), entitled: <i>Methods For Producing Low-K CDO Films With Low Residual Stress</i>
	C4	Wu et al., U.S. Application No. 10/800,409 (Atty Docket No.: NOVLP098), entitled: <i>Methods For Producing Low-K CDO Films</i>
	C5	U.S. Patent Application No. 10/016,017, File Date: December 12, 2001 (Atty Dkt: NOVLP030)
	C6	U.S. Patent Application No. 10/125,614, File Date: April 18, 2002 (Atty Dkt: NOVLP028)
	C7	U.S. Patent Application No. 10/202,987, File Date: July 23, 2002 (Atty Dkt: NOVLP028X1)
	C8	Tipton et al., "Method for Removal of Porogens From Porous Low-K Films Using Supercritical Fluids", Novellus Systems, Inc., Application No. 10/672,305, filed 9/26/03, pages 1-32. Atty. Docket No. NOVLP069/NVLS-000821
	C9	Humayun et al., "Method For Forming Porous Films By Porogen Removal Combined With In Situ Modification", U.S. Patent No. 10/404,693, filed March 31, 2003, Office Action dated March 15, 2005 (Atty Dkt: NOVLP064)
	C10	Tipton et al., "Method Of Porogen Removal From Porous Low-K Films Using UV Radiation", U.S. Application No. 10/672,311, filed September 26, 2003, Office Action dated September 7, 2004 (Atty Dkt: NOVLP075/NVLS-000820)
	C11	Tipton et al., "Method Of Porogen Removal From Porous Low-K Films Using UV Radiation", U.S. Application No. 10/672,311, filed September 26, 2003, Office Action dated December 28, 2004 (Atty Dkt: NOVLP075/NVLS-000820)
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<i>ZS/KS</i>	<i>6/24/06</i>	

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2565	C12	Tipton et al., "Method For Removal Of Porogens From Porous Low-K Films Using Supercritical Fluids", U.S. Patent No. 10/672,305, Office Action dated March 22, 2005 (Atty Dkt: NOVLP069).
	C13	R.D. Miller et al., "Phase-Separated Inorganic-Organic Hybrids for Microelectronic Applications," MRS Bulletin, October 1997, Pages 44-48
	C14	Jin et al., "Nanoporous Silica as an Ultralow-k Dielectric," MRS Bulletin, October 1997, Pages 39-42
	C15	Asoh et al., "Fabrication of Ideally Ordered Anodic Porous Alumina with 63 nm Hole Periodicity Using Sulfuric Acid," J. Vac. Sci. Technol. B 19(2), Mar/Apr 2001, Pages 569-572
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	C17	Holland et al., "Nonlithographic Technique for the Production of Large Area High Density Gridded Field Sources," J. Vac. Sci. Technol. B 17(2), Mar/Apr. 1999, Pages 580-582
	C18	Masuda et al. "Highly Ordered Nanochannel-Array Architecture in Anodic Alumina," App. Phys. Lett. 71(19), November 1997, Pages 2770-2772
	C19	Clube et al., "White Paper from Holotronic Technologies SA; downloaded from www.hdotronic.com/whitepaper/fine-patt.pdf on March 12, 2002
	C20	Meli et al., "Self-Assembled Masks for the Transfer of Nanometer-Scale Patterns into Surfaces: Characterization by AFM and LFM", Nano Letters, Vol. 2, No. 2, 2002, 131-135
	C21	"Shipley Claims Porous Low K Dielectric Breakthrough," Press Release March 17, 2003.
	C22	Jeffrey M. Calvert and Michael K. Gallagher, Semiconductor International, 26 (12), 56 (2003).
	C23	Van Bavel et al., Future Fab International, 16, (2004).
	C24	Caluwaerts et al, "Post Patterning Meso Porosity Creation: A Potential Solution For Pore Sealing," IITC 2003.
	C25	Peter Singer, "New Materials and Designs to Improve Transistor Performance", April 1, 2004, Semiconductor International.
	C26	Ghani et al, "A 90nm High Volume Manufacturing Logic Technology Featuring Novel 45nm Gate Length Strained Silicon CMOS Transistors", IEEE, © 2003.
	C27	Bhadri N. Varadarajan, "Tensile Silicon Nitride - P1264 NESL", C & F Study, August 21, 2003.
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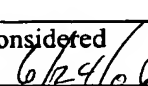
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JSKS	C28	Varadarajan, et al., "Strained Transistor Architecture and Method", Novellus Systems, Inc., Appln No. 10/923,259, filed August 20, 2004, pages 1-24. [Atty Docket No. NOVLP108/NVLS-2933].
	C29	Niu et al., "Methods For Improving The Cracking Resistance Of Low-K Dielectric Materials", U.S. Application No. 10/860,340, filed June 2, 2004, (Atty Dkt: NOVLP099)
	C30	Niu et al., "Methods For Improving The Cracking Resistance Of Low-K Dielectric Materials", U.S. Application No. 10/860,340, Office Action dated March 2, 2005, (Atty Dkt: NOVLP099)
	C31	Niu et al., "Methods For Improving The Cracking Resistance Of Low-K Dielectric Materials", U.S. Application No. 10/860,340, Final Office Action dated June 13, 2005, (Atty Dkt: NOVLP099)
	C32	Wang et al., "Plasma Detemplating And Silanol Capping Of Porous Dielectric Films", U.S. Application No. 10/785,235, filed February 23, 2004 (Atty Dkt: NOVLP085)
	C33	Varadarajan et al., "Tensile Dielectric Films Using UV Curing", U.S. Application No. 10/972,084, filed October 22, 2004 (Atty Dkt: NOVLP122)
	C34	Fox et al., "Method For Improving Mechanical Properties Of Low Dielectric Constant Materials", U.S. Application No. 10/849,568, filed May 18, 2004 (Atty Dkt: NOVLP083)
	C35	Fox et al., "Methods For Producing Low-Stress Carbon-Doped Oxide Films With Improved Integration Properties", U.S. Application No. 10/987,208, filed November 12, 2004 (Atty Dkt: NOVLP104)
	C36	Van Den Hoek et al., "VLSI Fabrication Processes For Introducing Pores Into Dielectric Materials," U.S. Application No. 11/050,621, filed January 31, 2005 (Atty Dkt: NOVLP100)
	C37	Draeger et al., "Creation Of Porosity In Low-K Films By Photo-Disassociation Of Imbedded Nanoparticles," U.S. Application No. 11/146,456, filed June 6, 2005 (Atty Dkt: NOVLP100X1)
	C38	Wu et al., "Methods For Producing Low Stress Porous Low-K Dielectric Materials Using Precursors With Organic Functional Groups", U.S. Application No. 10/927,777, filed August 27, 2004 (Atty Dkt: NOVLP106)
	C39	Wu et al., "Methods For Improving Integration Performance Of Low Stress CDO Films", U.S. Application No. 10/941,502, filed September 14, 2004 (Atty Dkt: NOVLP107)
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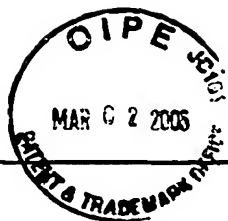
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Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
ZSL	C40	Cho et al., "Methods of Improving Porogen Removal and Film Mechanical Strength in Producing Ultra Low-K Carbon Doped Oxide Films Using Radical Photopolymerization", U.S. Application No. 10/982,654, filed November 5, 2004 (Atty Dkt: NOVLP115)
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U.S. Patent Documents

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BKS	A1	6,329,017	12/11/01	Liu et al.			10/04/99
	A2	6,383,466	5/7/02	Domansky et al.			12/28/98
	A3	6,365,266	4/2/02	MacDougall et al.			03/03/00
	A4	5,504,042	4/2/96	Cho et al.			06/23/94
	A5	5,858,457	1/12/96	Brinker et al.			09/25/97
	A6	6,270,846	8/7/01	Brinker et al.			03/02/00
	A7	6,387,453	5/14/02	Brinker et al.			03/02/00
	A8	6,420,441	10/10/99	Allen et al.			12/10/99
	A9	6,271,273	10/10/00	You et al.			10/10/00
	A10	20040096672	05/20/04	Lukas et al.			11/14/02
	A11	6,444,715	09/03/02	Mukherjee, et al.			06/06/00

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
BKS	A12	Humayun et al., "Method For Forming Porous Films By Porogen Removal Combined With In Situ Surface Modification", U.S. Application No. 10/404,693, filed March 31, 2003
	A13	Cho et al., "Method And Apparatus For UV Exposure Of Low Dielectric Constant Materials For Porogen Removal And Improved Mechanical Properties", U.S. Patent Application No. 10/800,377, filed March 11, 2004
	A14	Wu et al., "Methods Of Porogen Removal For Porous Low Dielectric Constant Films Using Plasma Treatments", U.S. Patent Application No. 10/807,680, filed March 23, 2004
	A15	Tipton et al., "Method Of Porogen Removal From Porous Low-K Films Using Uv Radiation", U.S. Patent Application No. 10/672,311, filed September 26, 2003
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ZKS	B1	6,420,441	10/10/99	Allen et al.			12/10/99
	B2	6,271,273	10/10/00	You et al.			10/10/00
	B3	4,885,262	12/5/89	Ting et al.			03/08/89
	B4	5,686,054	11/11/97	Barthel et al.			05/16/95
	B5	5,851,715	12/22/98	Barthel et al.			06/18/97
	B6	6,140,252	10/31/00	Cho et al.			05/05/98
	B7	6,392,017	5/21/02	Chandrashekar			08/04/00
	B8	6,386,466	5/14/02	Ozawa et al.			04/11/00
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	B13	2002/0001973	01/03/02	Wu et al.			04/24/01

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Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
ZKS	B14	Cho et al., "Plasma Treatments of Molecularly Templated Nanoporous Silica Films," Electrochemical and Solid-State Letters, 4 (4) G35-G38 (2001)
ZKS	B15	Yung et al., "Spin-on Mesoporous Silica Films with Ultralow Dielectric Constants, Ordered Pore Structures, and Hydrophobic Surfaces," Adv. Mater. 2001, 13, No. 14, 1099-1102
Examiner: ZKS		Date Considered: 6/24/06

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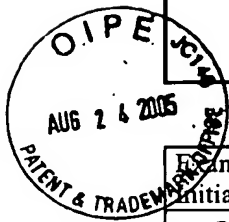
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25/65	C1	Schulberg et al., "System for Deposition of Mesoporous Materials," U.S. Patent Application No. 10/295,965, filed November 15, 2002, 64 Pages
↓	C2	Watkins et al., "Mesoporous Materials and Methods," U.S. Patent Application No. 10/301,013, filed November 21, 2002, 34 Pages
	C3	Gangpadhyay et al., "The First International Surface Cleaning Workshop," Northeastern University, November 11-14, 2002
	C4	Justin F. Gaynor, "In-Situ Treatment of Low-K Films With a Silylating Agent After Exposure To Oxidizing Environments," U.S. Patent Application No. 10/056,926 filed January 24, 2002, 34 Pages
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[Signature]		6/24/06

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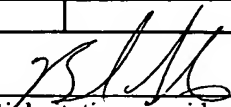
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Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
BKS	A1	6,500,770 B1	12.2002	Cheng et al.	↓	↓	
BKS	A2	2002/0192980 A1	12.2002	Hogle et al.			

Foreign Patent or Published Foreign Patent Application

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							Yes	No

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
BKS	C1	U.S. Office Action mailed July 13, 2005, from U.S. Application No. 10/672,311 [Atty Dkt No. NOVLP075/NVLS-000820].
BKS	C2	U.S. Office Action mailed July 27, 2005, from U.S. Application No. 10/785,235 [Atty Dkt No. NOVLP085/NVLS-2875].
Examiner		
	Date Considered	6/24/05

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Form 100 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary)	Atty Docket No. NOVLP088/NVLS-2882 Applicant: Bandyopadhyay et al. Filing Date April 16, 2004	Application No.: 10/825,888 Group 2891
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U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
↓	A1	6,573,030 B1	06.03.03	Fairbairn et al.			
	A2	2004/0096586 A1	05.2004	Schulberg et al.			
	A3	2003/0198895 A1	10.2003	Toma et al.			
	A4	6,846,380 B2	01.2005	Dickinson et al.	↓	↓	

Foreign Patent or Published Foreign Patent Application

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Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
↓	C1	Subramonium et al., "Pulsed PECVD Method for Modulating Hydrogen Content in Hard Mask", U.S. Application No. 11/318,269, filed December 23, 2005 (Atty Dkt: NOVLP144/NVLS-3102)
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